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Original communication

Perceptions and practices of medical practitioners towards ethics in medical practice – A study from coastal South India

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ABSTRACT

Ethics is the application of values and moral rules to human activities. Medical practitioners are expected to not only have the skills and knowledge relevant to their field but also with the ethical and legal expectations that arise out of the standard practices. The present research was conducted with an aim to study the perceptions and practices of medical practitioners towards healthcare ethics in Indian scenario and to strengthen the evidence in the field of ethics training. A cross-sectional study was carried out in three associate hospitals of a Medical College in Southern India. Medical practitioners included in the study were administered a pre-tested, semi-structured questionnaire. Data was collected based on their responses on a 5 point Likert scale and analyzed using SPSS version 11.5. The majority of the participants mentioned that their perceptions of ethics in medical practice were based on information obtained during their undergraduate training, followed by experience at work. The medical practitioners had a positive perception on issues relating to consent in medical practice. However, the same degree of perception was not observed for issues related to confidentiality and their dealing with patients during emergency conditions. The majority of the medical practitioners agreed that ethical conduct is important to avoid legal and disciplinary actions. Among the medical practitioners, the responses of specialists and non-specialists were mostly similar with major differences of opinion for a few issues. A highest level of knowledge, awareness and understanding of ethics are expected in medical practice as it is the foundation of sound healthcare delivery system.

1. Introduction

Medicine is not only about the knowledge about diseases, it also relates to the experiences, feelings, and interpretations of human beings in the moments of fear, anxiety, and doubt.[1] There are times of dilemma when the medical practitioners and patients are at cross-roads and choice and decision making become difficult in terms of ethics.[2] Ethics is the application of values and moral rules to human activities. Bioethics is a part of applied ethics that uses ethical principles and decision making to solve actual or anticipated dilemmas in medicine and biology. Knowledge of medical ethics is crucial to good patient care.[3] Medical practitioners are expected to not only have the skills and knowledge relevant to their field but also with the ethical and legal expectations that arise out of the standard practices.

Informed consent and confidentiality remains the cornerstone of medical practice based on ethical and legal considerations. From the ethical point of view, the patient has the right to seek all information regarding a procedure and decide accordingly. This is based on the ethical principle of patient autonomy and basic human rights. No medical practitioner can infringe with this right of a patient.[4] Failure to take informed consent prior to a procedure can amount to physical assault and negligence which is punishable in Indian law and can attract disciplinary action too. Indian Penal Code and Consumer Protection Act provide the legal framework and penal provisions for the injuries caused during the course of treatment in absence of informed consent. The Medical Council of India considers failure to obtain consent as misconduct and describes the disciplinary action to be initiated against medical practitioners found guilty in these cases.[5]

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The medical education curriculum in India is inclusive of training on ethical aspects in practice of medicine, without a separate status to it.[6] Knowledge about the various ethical issues is imparted mostly as a part of the subject of Forensic Medicine taught during the second year of the MBBS course in the ongoing curriculum. Though, studies are available on ethical issues in medical practice across various settings,[7–13] there is a paucity of literature on the knowledge, attitude and practices regarding ethical aspects in medical practice in Indian sub-continent.[14] The present research aims to study the perceptions and practices of medical practitioners towards healthcare ethics in Indian scenario and to strengthen the evidence in the field of ethics training.

2. Materials and methods

Ethical approval was obtained from the Institutional Ethics Committee (IEC) of Kasturba Medical College, Mangalore (affiliated to Manipal University) prior to conduct of study. A written informed consent was obtained from the participants included in the study.

A cross-sectional, facility based study was carried out in 3 associate tertiary care teaching hospitals of Kasturba Medical College (KMC), Mangalore, which functions in a public–private partnership mode for healthcare delivery in coastal South India. KMC is engaged in undergraduate and postgraduate medical teaching and caters to the healthcare needs of patients in and around the region. The study participants were medical practitioners working in these hospitals, those with basic medical qualification (MBBS) and pursuing their post-graduation in different clinical specialities, and those with postgraduate degrees (MD/MS/DNB) in various clinical specialities. For study purposes these participants were further grouped as specialists (MD/MS/DNB) and non-specialists (MBBS). The medical undergraduates and medical interns were excluded from the study.

The data was collected using a pre-tested, semi-structured questionnaire modified from the questionnaire used by Hariharan et al. in their studies.[7,8] The self-administered questionnaire was distributed to 125 medical practitioners working in the institution and having more than one year of clinical experience. A total of 104 duly filled questionnaires were retrieved from the participants, thus giving a response rate of 83.2%. The initial part of the questionnaire was concerned with socio-demographic characteristics of the participants and the subsequent part consisted of 10 items and sub-items about the perceptions of study participants towards ethics in medical practice. The responses of the participants regarding their perceptions towards ethical and legal issues in healthcare delivery were collected on a five point Likert scale. The responses to the Likert-type items were graded using a differential scaling system; from 1 (strongly disagree) to 5 (strongly agree) for the items (1-strongly disagree, 2-disagree, 3-not sure, 4-agree and 5-strongly agree). The data was analyzed using SPSS version 11.5 and p-value < 0.05 was considered as significant. The mean Likert score was calculated for each item. A comparative analysis was done for the responses of medical professionals with MBBS degree, and those with MD/MS/DNB in various clinical specialities using non-parametric Mann–Whitney U-test. During representation of data in tables, scores 1 and 2 were put together to represent a disagreement, score 3 for not sure and scores 4 and 5 together indicated an agreement with a statement.

3. Results

A total of 104 medical professionals (Males = 71, Females = 33) participated in the study. The age of the study participants ranged from 24 to 60 (30.31 ± 7.46) years with an experience ranging between 1 and 28 (4.55 ± 6.19) years. Most of the study participants had an experience of less than five years ($n = 79$, 78.0%). The majority of the total participants ($n = 65$, 62.5%), possessed MBBS as the highest degree while others ($n = 39$, 37.5%) had a postgraduate degree (MD/MS/DNB) in various clinical specialities. The mean age, work experience, and male-female ratio of the participants with undergraduate and postgraduate degrees are shown in Table 1. The most common way of dealing with the ethical issue in medical practice was consulting with the Head of the department or senior faculty, followed by consultation of issues with colleagues. A few participants consulted the hospital administrator, members of ethics committee and professional associations regarding the ethical issues (Table 2). The majority of the participants mentioned that knowledge of ethics in medical practice was obtained during their undergraduate training, followed by experience at work and postgraduate training respectively. Continued Medical Education (CME) programmes/seminars/lectures/conferences and following the literature on ethics were mentioned as a source of information by a few respondents (Table 3).

Regarding the issues relating consent in medical practice, the participants felt that written informed consent should be taken for major (94.2% agreement) and minor operations (91.3% agreement), and for treatment with adverse reactions (87.5% agreement). A relatively lesser number of participants felt the need of taking written informed consent during investigative procedures (76.9% agreement). The majority of the participants (76.9% agreement) felt that written informed consent should not be taken for general physical examination. The details on the perceptions of participants on issues relating to consent are shown in Table 4. The responses by specialists and non-specialists did not show any significant differences in issues relating to consent. However, for treatment involving adverse reactions, a significant difference ($p = 0.036$) was observed between responses of non-specialists and specialists with a higher proportion of specialists (94.8% agreement) believing in the need of taking written informed consent in such cases when compared to non-specialists (83.0% agreement). Regarding written informed consent of parents/local guardians during treatment of children in emergency and non-emergency situations (Table 4), most of the participants (both specialists and non-specialists) felt that written informed consent should be taken in non-emergency conditions (77.9% agreement). For emergency conditions, however, a varying response was obtained (51.9% agreement) which showed statistically significant differences between specialists and non-specialists ($p = 0.018$). Among the specialist group, 46.1% ($n = 18$) agreed, 43.6% ($n = 17$) disagreed and 10.3% ($n = 4$) were not sure, while among the non-specialist group, 55.4% ($n = 36$) agreed, 26.1% ($n = 17$) disagreed and 18.5% ($n = 12$) were not sure about the need to take consent from the parents/guardian of children during emergency conditions/procedures.

With regards to providing treatment in emergency and non-emergency conditions in different scenario, a varying response was obtained regarding the adherence to patient's wishes during an emergency. While 45.2% participants ($n = 47$) agreed, 39.4% ($n = 41$) disagreed and 10.3% ($n = 4$) were not sure about the same. A proportionately larger number of participants however, felt that patient's wishes should be adhered to in non-emergency cases (Table 5). A divided opinion was obtained on whether a medical professional should refuse to treat a violent patient in emergency.

Table 1
Baseline characteristics of study participants ($n = 104$).

	Non-specialists ($n = 65$)	Specialists ($n = 39$)
Mean age	26.95 ± 2.29 years	35.90 ± 9.52 years
Work experience	2.1 ± 1.78 years	8.6 ± 8.46 years
Male:female	44:21	27:12

Table 2
Consultation taken by the study participants[a] to deal with the ethical issues.

Consultation with	Non-specialists *N* (row %)	Specialists *N* (row %)	Total *N* (row %)
Colleagues	25 (65.8)	13 (34.2)	38 (100)
Head of department/senior	44 (61.9)	27 (38.1)	71 (100)
Hospital administrator	05 (45.4)	06 (54.6)	11 (100)
Ethics committee members	04 (40.0)	06 (60.0)	10 (100)
Professional associations	05 (55.6)	04 (44.4)	09 (100)

[a] Participants were allowed to indicate more than one option, if required.

However, if a patient is violent in non-emergency condition, the majority of the participants (78.8%) agreed that such patients should be refused treatment (Table 5). For medical termination of pregnancy, half of the participants agreed that a doctor can refuse to terminate pregnancy in emergency cases. In case of a non-emergency situation, however, a larger number of participants (62.5%) agreed that they can refuse to terminate pregnancy/do an abortion (Table 5). The responses by specialists and non-specialists did not show any significant differences in issues relating to providing treatment in emergency and non-emergency conditions in different scenarios presented in Table 5.

Regarding maintaining confidentiality of patient's condition, nearly half of the medical practitioners felt that confidentiality need not be maintained and related information can be divulged in cases of legal (48.1% agreement), social (55.8% agreement), and employment related (57.7% agreement) issues. The awareness levels on issues of confidentiality were low (Table 6) and did not show any significant differences in responses by specialists and non-specialists. On perceptions of medical practitioners regarding provision of informing close relatives about patient's condition, the majority of the medical practitioners (83.6%) agreed that in case a patient is serious (unfavourable diagnosis/poor prognosis), the information related to his/her condition should be provided to the relatives. While in case of non-serious conditions, most of them (61.5%) felt that the information should not be provided to the relatives (Table 6). Statistically significant differences were however, observed in responses by specialists and non-specialists. A larger proportion of specialists (89.7%) felt that the relatives need to be informed about patient's condition if it is serious, when compared to non-specialists (80.0%) ($p = 0.020$). For cases when the patient condition is not serious, larger proportion of specialists (74.4%) felt that the relatives need not to be informed about his/her condition when compared to non-specialists (53.8%) ($p = 0.036$). In a scenario where a patient refuses certain treatment/intervention due to his/her beliefs, even after convincing efforts, most of the medical practitioners (74.0%) agreed that such patients should be continued with the treatment. Nearly half of the practitioners (54.8%) felt that the patient should be instructed to find another doctor in these cases (Table 6). On opinion regarding informing the patient about any wrong doing, more than half of the participants (57.7%) agreed that patient should be informed in case of wrong, a good number of participants (27.9%) were not sure about it, while the others disagreed (14.4%) with it. The majority of the participants ($n = 74$) felt that ethical conduct is important to avoid legal actions. Significant differences ($p < 0.001$) were however, observed in perceptions of specialist (92.3% agreement) and non-specialist group (58.5% agreement). The majority of the participants ($n = 76$), both specialists and non-specialist felt that ethical conduct is important to avoid disciplinary actions.

Variations were apparent for the responses of specialist and non-specialist group to different items and sub-items included in the study. The mean Likert scores for each item and sub-item in the questionnaire among non-specialists and specialists are shown in Table 7.

Table 3
Sources of information on issues of ethics in medical practice among the study participants.[a]

Information obtained during	Non-specialists *N* (row %)	Specialists *N* (row %)	Total *N* (row %)
Undergraduate training	37 (64.9)	20 (35.1)	57 (100)
Postgraduate training	22 (55.0)	18 (45.0)	40 (100)
Experience at work	21 (47.7)	23 (52.3)	44 (100)
Lectures/seminars/CME/ conferences	09 (64.3)	05 (35.7)	14 (100)
Self-reading/literature	07 (36.8)	12 (63.2)	19 (100)

[a] Participants were allowed to indicate more than one option, if required.

Table 4
Perceptions of participants on issues relating consent in medical practice.

Issues in medical practice	Disagree *N* (%)	Not sure *N* (%)	Agree *N* (%)
1. Written informed consent should be taken for			
a-Major operations	01 (00.9)	05 (04.8)	98 (94.2)
b-Minor operations/procedures	03 (02.9)	06 (05.8)	95 (91.3)
c-Routine investigations	11 (10.6)	13 (12.5)	80 (76.9)
d-Treatment with adverse reactions	07 (06.7)	06 (05.8)	91 (87.5)
e-General physical examinations	80 (76.9)	06 (05.8)	18 (17.3)
2. Children should not be treated without the written informed consent of parents/local guardian in			
a-Emergency	34 (32.7)	16 (15.4)	54 (51.9)
b-Non-emergency	12 (11.5)	11 (10.6)	81 (77.9)

4. Discussion

It is essential that the doctors have an in-depth knowledge of the legal and ethical aspects in the practice of medicine, as well as the patients' rights in healthcare. Standards are set to safeguard human rights in patient care internationally. In this regard, the key provisions of the Universal Declaration of Human Rights (UDHR) include right to life, right to privacy, right to seek, receive, and impart information, and right to medical care. Major international human rights treaties guarantee the protection of human rights in patient care. Charter on the Right to Health 2005 (International Union of Lawyers) addresses the issues such as privacy and informed consent. Declaration on the Rights of the Patients 2005 (revised) by the World Medical Association addresses issues such as the rights to confidentiality, information, and informed consent.

Table 5
Perceptions of participants towards ethics in medical practice during emergency and non-emergency conditions.

Issues in medical practice	Disagree *N* (%)	Not sure *N* (%)	Agree *N* (%)
3. Patient's wishes must be adhered to in			
a-Emergency	41 (39.4)	16 (15.4)	47 (45.2)
b-Non-emergency	19 (18.3)	20 (19.2)	65 (62.5)
4. Doctors can refuse to treat a violent patient in			
a-Emergency	46 (44.2)	18 (17.3)	40 (38.5)
b-Non-emergency	08 (07.7)	14 (13.5)	82 (78.8)
5. Doctors can refuse to do abortion in			
a-Emergency	28 (26.9)	24 (23.1)	52 (50.0)
b-Non-emergency	14 (13.5)	25 (24.0)	65 (62.5)

Table 6
Perceptions and practices of participants for ethics in medical practice.

Issues in medical practice	Disagree *N* (%)	Not sure *N* (%)	Agree *N* (%)
6. Confidentiality is not important in			
a-Legal issues	35 (33.7)	19 (18.3)	50 (48.1)
b-Social issues	33 (31.7)	13 (12.5)	58 (55.8)
c-Employment issues	24 (23.1)	20 (19.2)	60 (57.7)
7. Close relatives should be detailed			
a-When patient condition is not serious	64 (61.5)	14 (13.5)	26 (25.0)
b-When patient condition is serious	08 (07.7)	09 (08.7)	87 (83.6)
8. If a patient refuses certain treatment due to his/her beliefs, he/she should be			
a-Instructed to find another doctor	28 (26.9)	19 (18.3)	57 (54.8)
b-Continued with the treatment	17 (16.3)	10 (09.6)	77 (74.0)
9. Patient should be informed of a wrong	15 (14.4)	29 (27.9)	60 (57.7)
10. Ethical conduct is important to avoid			
a-Legal action	22 (21.2)	08 (07.7)	74 (71.2)
b-Disciplinary action	08 (07.7)	20 (19.2)	76 (73.1)

Similarly, the Declaration on Patient-Centred Healthcare 2007, by International Alliance of Patients' Organizations (IAPO) emphasizes on five principles; respect, choice and empowerment, patient involvement in health policy, access and support, and information.[15] The Medical Council of India sets the standards for good medical practice in India. In exercise of the powers conferred under section 20A read with section 33(m) of the Indian Medical Council Act, 1956, the Medical Council of India, has made certain regulations relating to the Professional Conduct, Etiquette and Ethics for registered medical practitioners.[16]

Most of the study participants in the present study on perceptions and practices of medical practitioners towards ethics in medical practice were in the younger age group, suggesting their more recent sensitization to the ethical aspects of healthcare during their undergraduate and postgraduate medical education and training. For the purpose of resolving the ethical issues in medical practice, most of the medical practitioners consulted the Heads of the concerned departments, while a very few of them approached Institutional Ethics Committee. In studies conducted in Barbados, Caribbean Island[7,8] and the U.S.A.,[9] many healthcare professionals expressed lack of awareness regarding Institutional Ethics Committee, despite existence of a well-established committee in the

Table 7
The items in the questionnaire and the observed mean Likert score.

Issues in medical practice	Specialists ($n = 39$)	Non-specialists ($n = 65$)	Mean score ($n = 104$)
1. Written informed consent should be taken for			
a-Major operations	4.74	4.57	4.63
b-Minor operations/procedures	4.62	4.43	4.50
c-Routine investigations	4.21	3.95	4.05
d-Treatment with adverse reactions	4.46	4.09	4.23
e-General physical examinations	2.03	2.20	2.13
2. Children should not be treated without the written informed consent of parents/local guardian in			
a-Emergency	2.72	3.46	3.18
b-Non-emergency	4.21	4.06	4.12
3. Patient's wishes must be adhered to in			
a-Emergency	2.79	3.18	3.04
b-Non-emergency	3.67	3.65	3.65
4. Doctors can refuse to treat a violent patient in			
a-Emergency	2.64	3.00	2.87
b-Non-emergency	4.26	3.97	4.08
5. Doctors can refuse to do abortion in			
a-Emergency	3.21	3.42	3.34
b-Non-emergency	3.82	3.62	3.69
6. Confidentiality is not important in			
a-Legal issues	3.15	3.17	3.16
b-Social issues	3.24	3.32	3.28
c-Employment issues	3.44	3.49	3.47
7. Close relatives should be detailed			
a-When patient condition is not serious	2.13	2.58	2.41
b-When patient condition is serious	4.51	4.12	4.27
8. If a patient refuses certain treatment due to his/her beliefs, he/she should be			
a-Instructed to find another doctor	3.44	3.22	3.37
b-Continued with the treatment	4.15	3.80	3.93
9. Patient should be informed of a wrong	3.77	3.60	3.66
10. Ethical conduct is important to avoid			
a-Legal action	4.46	3.35	3.73
b-Disciplinary action	4.10	3.85	3.94

institutions. The members of ethics committee are expected to be well equipped with the knowledge of ethical issue and can be of great help in such circumstances. The importance of Ethics Committee in resolving the ethical issues in practice of medicine needs to be emphasized. Our study observed that the information regarding healthcare ethics was obtained by the medical practitioners from multiple sources, similar to the study from Barbados.[7] In the present study, most of the participants obtained their knowledge during their undergraduate medical education followed by experience at work. Our finding is different from that reported in a study from Egypt[11] where only 18.0% of the participants had obtained their knowledge from medical education. In Barbados,[7,8] most of the participants received the information regarding ethical issues on the job followed by during the training period. These differences may be due to in the variations in the medical curriculum with regards to training of ethics in these set ups.

Informed consent is an important ethical consideration in the practice of medicine. Informed consent can be defined as 'an instrument of mutual communication between doctor and patient with an expression of authorization/permission/choice by the latter for the doctor to act in a particular way'.[4] The patients have the right to take an informed decision. However, in emergency cases and in patients who are unable to take a decision on their own, a surrogate decision making may be justifiable.[14,17] A comparative study in this regards details on the awareness, knowledge and attitude towards informed consent among doctors in two different cultures in Asia.[14] Regarding matters pertaining to obtaining written informed consent in various situations, the medical practitioners felt differently for various circumstances. While the majority of them felt that a written informed consent needs to be taken during major and minor operation, for treatment with adverse reactions and during investigative procedures, they were of the view that written informed consent is not required for general physical examination. A significantly larger number of specialists recognized the need to take written informed consent in treatment involving adverse reactions than the non-specialist group. Our observations indicate a higher degree of awareness among specialists than non-specialist groups. Similarly, regarding the issues regarding written informed consent of parents/local guardians during treatment of children in emergency and non-emergency situations though most of the participants felt that consent should be taken in non-emergency situations, the agreement proportion was low. For emergency conditions, the opinion of participants was divided and a varying response was obtained which shows an increased need for addressing the issue among medical practitioners. It needs to be emphasized that a well-documented written informed consent is considered as a legal document in cases of alleged negligence claims associated with miscommunications.[5]

In our study, the participants had a mixed opinion on whether the patient's wishes must be adhered to in emergency and non-emergency conditions. In a study from Barbados[8] a lower proportion of doctors agreed for the view that patients' wishes must be adhered to in emergency and non-emergency cases. Similarly, the participants were of a mixed view on treating a violent patient in emergency. However, the majority of them felt that they could refuse treating a violent patient in non-emergency cases. According to the Code of Ethics Regulations, 2002 of the Medical Council of India,[16] the patient must not be neglected. Although a physician is free to choose whom he will serve, he should, however, respond to any request for his assistance in an emergency. The Supreme Court of India has stated that Article 21 imposes an obligation on the State to safeguard the right to life of every person. The apex Court in numerous cases has ruled that a medical practitioner has a duty to treat a patient in an emergency.[18] For medical termination of pregnancy, half of the participants agreed that a doctor can refuse to terminate pregnancy in emergency cases. A proportionately larger number of participants agreed that they can refuse to terminate pregnancy in non-emergency situations. It needs to be emphasized that medical practitioners should not refuse to treat patients in emergencies irrespective of the reasons and circumstances behind the same. With regards to Indian laws on abortion, the guidelines and conditions for medical termination of pregnancy are described in the MTP Act of 1971.[19] As per the Act, for termination of pregnancy, informed consent needs to be taken from the pregnant woman. In cases when the pregnant woman has not attained the age of eighteen years, or, who, having attained the age of eighteen years, is a lunatic, the consent in writing is required from her guardian.

Confidentiality is an essential element of the doctor-patient relationship. Medical practitioners are expected to protect the confidential and private information obtained during their practice of medicine. There however, may be certain situations where a disclosure of personal health information be made permissible. According to the Code of Ethics Regulations, 2002,[16] "Confidences concerning individual or domestic life entrusted by patients to a physician and defects in the disposition or character of patients observed during medical attendance should never be revealed unless their revelation is required by the laws of the State. Sometimes, however, a physician must determine whether his duty to society requires him to employ knowledge, obtained through confidence as a physician, to protect a healthy person against a communicable disease to which he is about to be exposed. In such instance, the physician should act as he would wish another to act towards one of his own family in like circumstances." The study conducted in Barbados,[8] 82% doctors agreed that confidentiality is important in medical practice whereas in a study from Saudi Arabia[20] nearly 80% of the clinicians agreed to the disclosure of patient confidential medical information. Regarding maintaining confidentiality for legal, social and employment aspects, a good number of participants did not agree/were not sure if information on patient's condition can be divulged in legal, social or employment related issues. The majority of the medical practitioners in our study agreed that in case a patient's condition is serious, the information related to his/her condition should be provided to the relatives. This is in accordance with the Code of Ethics Regulations, 2002 of Medical Council of India,[16] which states that the physician should neither exaggerate nor minimize the gravity of a patient's condition. The document further states that the physician should ensure himself that the patient, his relatives or his responsible friends have such knowledge of the patient's condition as will serve the best interests of the patient and the family. In this regard, practice of partial disclosure is also common in many countries.[14] When a patient refuses certain treatment/intervention due to his/her beliefs, most of the medical practitioners felt that he/she should be continued with the treatment while some felt that such patients should be instructed to find another doctor. It was worth noting that more than half of the participants agreed that patient should be informed in case of a wrong doing. In the study, wrong doing refers to inadvertent medical errors occurring in medical practice. Adherence to healthcare ethics was felt necessary by the participants to avoid legal and disciplinary actions. Besides, it needs to be taken up as an essential element in improving their relationship with the patients. Variations in the responses of specialist and non-specialist group to different items and sub-items included in the study can be related to the variations in the experience of the participants in these groups. Comparison of our observations with other studies[7–14] demonstrates the difference in perceptions of the medical practitioners across various geographical locations.

5. Conclusion

This study conducted in the coastal city of Mangalore, Karnataka attempted to ascertain the perceptions and practices of healthcare professionals regarding ethical issues in medical practice. The awareness levels were higher in the specialist than the non-specialist group. Awareness was particularly higher for consent related issues and comparatively lower for issues relating to confidentiality and treatment in emergency conditions. The majority of the participants felt that ethical conduct is important to avoid legal and disciplinary actions. The results of the present research should not be considered to be representative for the whole of India which can be considered as a limitation of the study. The observations of the study however, would provide useful comparisons for the future researchers from India as well as abroad on this very relevant topic.

A highest level of knowledge, awareness and understanding of ethics are expected in medical practice as it is the foundation of sound healthcare delivery system. Moreover, it is likely to reduce the chances of possible litigation. In light of the observations made in the study, efforts should be taken to increase the exposure of medical practitioners to issues relating ethics in medical practice through continued medical education programmes, workshops and conferences. Capacity building through various modes of active teaching like pedagogy, group discussions and role play should be encouraged. Most importantly emphasis should be given on the inclusion of ethics as a larger part of medical curriculum during undergraduate and postgraduate training of the medical graduates and post-graduates.

Ethical approval

Ethics Committee approval was obtained from the Institutional Ethics Committee of Kasturba Medical College, Mangalore (affiliated to Manipal University), India prior to the commencement of the study.

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Contributorship

BU and TK researched literature and conceived the study. VK and NK were involved in data collection and helped in review of literature. BU and TK analyzed the data statistically, made the tables, and wrote the results. VK and NK contributed to the introduction, material and methods and discussion of the manuscript. MK, RT and PM contributed to review of literature. TK and BU reviewed and edited the manuscript. All the authors reviewed and edited the manuscript for intellectual content, and approved the final version of the manuscript.

Conflict of interest

The authors state that there are no conflicts of interest.

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